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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,190	09/17/2003	Denis Ghesquiere	291621US0	9335
22850	7590	09/05/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER GILLESPIE, BENJAMIN	
			ART UNIT 1711	PAPER NUMBER
			NOTIFICATION DATE 09/05/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/667,190	Applicant(s) GHESQUIERE, DENIS	
	Examiner Benjamin J. Gillespie	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/10/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 13 provides for the use of a urethane elastomer, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.
2. Claim 13 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd. App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 7-11 rejected under 35 U.S.C. 102(b) as being anticipated by Seiwert et al ('049). Seiwert et al teach the production of a polyester polyol comprising the reaction product of

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diethylene glycol and a 50:50 molar mixture of sebacic acid and orthophthalic acid (Col 1 lines 17-26, 67-72; col 2 lines 1-6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thoma et al ('172) in view of Seiwert et al ('049). Thoma et al teach a polyurethane elastomer, which exhibits superior hydrolysis resistance and method for production comprising a first step A) which reacts polyisocyanate and aliphatic polyester polyol, forming an NCO terminated polyurethane prepolymer followed a second step B) which reacted the prepolymer of step A) with an aromatic polyester polyol (Abstract; col 2 lines 8-15, 57-60). In particular, patentees explain that the aliphatic polyester polyol is the reaction product of adipic acid and low molecular weight diols, such as ethylene glycol and/or butanediol (Col 2 lines 41-44, 57-58; col 5 lines 21-23). The aromatic polyester polyol is the reaction product of low molecular weight diols, such as ethylene glycol and/or butanediol and a 50:50 molar mixture of aliphatic and aromatic dicarboxylic acids, consisting respectively of adipic acid and isophthalic acid (Col 3 lines 74-75; col 4 line 1). However, patentees are silent in teaching aromatic polyester polyol reactants consisting of sebacic acid and orthophthalic acid.
5. Seiwert et al also teach flexible polyurethanes based on the reaction product of an NCO terminated aliphatic polyurethane prepolymer and aromatic polyester polyol (Col 1 lines 10-16,

35-36). In particular, Seiwert et al explain that the aromatic polyester polyol is the reaction product of dicarboxylic acid and low molecular weight diol such as butanediol, ethylene glycol, and diethylene glycol (Col 1 lines 17-22). The dicarboxylic acid is a 50:50 mol mixture of aliphatic dicarboxylic acids, such as adipic acid and/or sebacic acid, and aromatic dicarboxylic acids, such as isophthalic acid and/or orthophthalic acid (Col 1 lines 22, 67-72; col 2 lines 1-6).

6. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute sebacic acid for adipic acid, diethylene glycol for butanediol and/or ethylene glycol, and orthophthalic acid for isophthalic acid in Thoma et al based on the motivation that reactive species has been disclosed as equivalents in equivalent applications, i.e. the extending NCO polyurethane prepolymers, wherein the final composition exhibits improved hydrolysis resistance and the mere substitution of an equivalent as taught by the prior art is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable, i.e. it would have been obvious (Col 2 lines 59-63) *In re Ruff* 118 USPQ 343 (CCPA 1958). Furthermore it would have been obvious to substitute the position isomer of orthophthalic acid for isophthalic acid based on compounds having the same radicals at different positions on the nucleus are position isomers; their properties are often so nearly alike as to present difficulties in identification or separation. *Ex parte Mowry* (POBA 1950) 91 USPQ 219.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thoma et al ('172) in view of Seiwert et al ('049) and in further view of Lorenz et al ('471).

Aforementioned, Thoma et al in view of Seiwert et al render obvious a hydrolysis resistant polyurethane elastomer comprising the reaction product of an aliphatic polyester based NCO

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terminated polyurethane prepolymer, and aromatic polyester polyol, wherein the resulting polymer is useful in load bearing applications (Thoma et al; col 4 lines 65-67). However, neither Thoma et al nor Seiwert et al disclose shoe soles comprising said polyurethane elastomer.

8. Lorenz et al also teach hydrolysis resistant polyurethane elastomers comprising the reaction product of NCO terminated polyester based polyurethane prepolymer, and polyester polyol (Col 1 lines 5-11, 45-56; col 3 lines 54-67; col 4 lines 1-14). In particular the polyesters are based on the reaction products of acids such as sebacic and adipic acid, and low molecular weight diols consist of and butanediol, ethylene glycol as well as diethylene glycol. Finally, patentee explains that based on the mechanical behavior of the elastomer as well as chemical resistance, the resulting elastomer is useful in shoe sole construction (Col 10 lines 10-15). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to also utilize the elastomer of Thoma et al in shoe soles based on Thoma et al and Lorenz et al having similar compositions, both being drawn to hydrolysis resistance elastomers that have load bearing properties, and the prima facie case of obviousness that rises from the expectation that compounds similar in structure will have similar properties. *In re Gyurik*, 596 F. 2d 1012, 201 USPQ 552 (CCPA 1979).

Note

9. The reference EP 156 665 A1 lined through on the information disclosure statement dated August 10th, 2004 has not been considered because no English translation has been provided.


Conclusion

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin J. Gillespie whose telephone number is 571-272-2472. The examiner can normally be reached on 8am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. Gillespie


RABON SERGENT
PRIMARY EXAMINER